

1982 US ARMY MATERIEL DEVELOPMENT AND READINESS COMMAND (DARCOM)
INTEGRATED LOGISTIC SUPPORT (ILS) STUDY FINDING ON CONTRACTING FOR ILS

David M. Morgan, USA DARCOM Materiel Readiness Support Activity

INTEGRATED LOGISTIC SUPPORT
ABSTRACT

This paper gives a general overview of the objective, organization, and approach used by the 1982 DARCOM ILS Study. The seven high payoff areas that the study concentrated on are listed but only the results of the solicitation documents study effort are discussed in detail. Each action item developed by the solicitation documents subgroup is discussed in detail to include a description of both the problem and recommended correction(s).

INTRODUCTION

The DARCOM ILS Study was directed by the DARCOM Deputy Commanding General for Materiel Readiness on 27 May 1982. The study was conducted under the chairmanship of the DARCOM Director for Supply, Maintenance, and Transportation with the Commander, US Army DARCOM Materiel Readiness Support Activity serving as the study vice-chairman. It should be noted that the Director for Supply, Maintenance, and Transportation is the HQ DARCOM staff element responsible for ILS.

The purpose of the study was to identify actions which DARCOM could take to improve the ILS process. The study was to identify weaknesses and provide pragmatic recommendations to improve and, if necessary, overhaul the DARCOM ILS process. Also, the study was to be completed in 3 months.

A study team was established consisting of representatives of HQ DARCOM staff elements, each DARCOM major subordinate command (MSC), selected project managers (PMs), and selected DARCOM activities. After research of recent studies, e.g., Study of Army Logistics-81 (STARLOG 81), Department of the Army Inspector General on Force Modernization (DAIG FM) Report, and collective team member experiences, the following high payoff areas were identified and a subgroup was established for each:

- a. Organizational Structure for ILS Management
- b. ILS Funding
- c. Solicitation Documents
- d. Support Analysis/Data
- e. ILS Policy, Plans and Procedures
- f. Associated Support Items of Equipment
- g. Materiel Fielding Process

In pursuit of each high payoff area, the subgroups researched available information sources and conducted visits and discussions with personnel from DARCOM MSCs, PMs, HQ DARCOM, HQDA

(ODCSLOG, ODCSRDA), Logistics Evaluation Agency, and DOD schools. Defense industry input to the study was provided by a group of representatives from the National Security Industrial Association (NSIA) Logistic Management Committee (LOMAC). The NSIA LOMAC representatives provided a briefing to the entire study team which outlined industry's perspective of ILS within DARCOM and provided recommendations for improvement. Command level perspectives and recommendations on ILS within DARCOM were obtained by surveying all DARCOM MSC commanders and DARCOM PMs.

During the months of July and August 1982, the full study group met three times. The first meeting, 1-2 Jul 82, enabled the full study team to solidify the high payoff areas and identify specific issues for each payoff area. The second meeting, 22-23 Jul 82, allowed each subgroup the opportunity to present their defined problem areas and emerging recommendations and obtain input from other members of the complete study group. The third meeting, 10-11 Aug 82, was used to permit each study group to present their findings and recommendations, and to discuss and refine possible methods of implementing specific recommendations.

Subsequent to the final meeting, the subgroup reports were finalized and published. There was a total of 50 action items emanating from the seven subgroups. The problems and recommendations were documented in a "Carlucci Report" format that included:

- a. Problem/Background.
- b. Recommendation.
- c. Advantages.
- d. Disadvantages.
- e. Action Required.
- f. Blocks for the reviewer to indicate Approval/Disapproval.

Implementing directives to accomplish each recommended action were developed in the form of letters, memorandums, etc., for signature by the responsible individual at HQ DARCOM.

TEXT OF PAPER

The solicitation documents subgroup quickly identified 10 priority action items. These action items were--

- a. Section C Integration and Clarity
- b. Outmoded/Missing Data Item Descriptions (DIDs)

- c. System/Development Specification
- d. Supportability Weighting
- e. Maintenance Concept
- f. Logistic Acquisition Strategy
- g. Contractor Incentives for Reliability and Support
- h. ILS Standardization
- i. Dedicated Logistic Prototypes
- j. ILS Contracting Training

The section C integration and clarity action item stemmed from the observation that the logistic portion of Section C, Description/Specification (to include all logistic statements of work), is often not written in a clear, concise, integrated manner. This, in turn, causes a significant comprehension problem to responding contractors. This observation was validated by a review of approximately 20 solicitation documents/contracts within the CY 80-82 time frame. The review had revealed many instances where work requirements in the logistic portion of Section C were not written with the clear understanding that the contractor must be able to read and understand the logistic work requirements before the work can be performed.

The subgroup recommended that the DARCOM ILS regulation, i.e., DARCOM-R 700-15, be changed to make the ILS manager responsible for integrating the entire logistic portion of Section C and for ensuring its compatibility with the other Section C requirements; e.g., engineering, reliability and maintainability, safety, system/project management, etc. The subgroup also recommended that the ILS manager be made co-chairman of the Data Requirements Review Board (DRRB) and that the development of MIL-HDBK-245B, Preparation of Statement of Work, be monitored and applied by the DARCOM ILS community on approval.

The outmoded and missing DIDs action item stemmed from the observation that many logistic DIDs are outmoded and require extensive modification before use, e.g., Integrated Support Plan, Maintenance Support Plan, etc. In other cases, DIDs do not exist for data items needed by current policy (e.g., System Support Package Component Listing; Logistic Review Meetings, Agenda Items, and Minutes). This problem is worsened by the slow and cumbersome process for updating current DIDs and getting new DIDs approved. Also, those DARCOM personnel in the best position to see DID problems, i.e., ILS managers involved in solicitation development, are the least likely to initiate a correction.

The subgroup recommended that HQ DARCOM establish a Logistic Data Management Work Group to:

- a. Update outmoded logistic DIDs
- b. Develop needed DIDs
- c. Perform annual review of logistic DIDs
- d. Support the DARCOM Directorate for

Manufacturing Technology efforts to standardize logistic data requirements

- e. Support other DOD DID standardization/redundancy reduction efforts.

The subgroup also recommended that the effort by ILS managers to maintain current logistic DIDs should be a special subject for the DARCOM Inspector General.

The system/development specification action item stemmed from the observation that full advantage of the system and development specification formats found in MIL-STD-490, Specification Practices, is not taken for stating logistic design requirements. This is especially disturbing since the MIL-STD-490 format for system and development specifications offer ample opportunity for the inclusion of logistic design requirements. Examples of these are paragraphs--

- a. 4.2.2.2 - Physical Characteristics
- b. 4.3.2.2.1 - Protective Coating
- c. 4.3.2.3 - Reliability
- d. 4.3.2.4 - Maintainability
- e. 4.3.2.5 - Environmental Condition
- f. 4.3.2.6 - Transportability
- g. 4.3.3 - Design and Construction
- h. 4.3.3.1 - Materials
- i. 4.3.3.3 - Nameplates or Product Marking
- j. 4.3.3.5 - Interchangeability
- k. 4.3.3.7 - Human Engineering
- l. 4.3.5 - Logistics
- m. 4.3.6 - Personnel and Training

The subgroup recommended the following:

- a. Require the ILS manager to participate in the development of the system/development specification to ensure logistic requirements are adequately addressed.
- b. Make development of technical logistic design requirements and incorporation of these requirements into the system/development specifications a core mission and function of DARCOM MSC ILS offices.
- c. Make the development and use of procedures necessary to acquire, catalog, store, manipulate, analyze, and retrieve field feedback on logistic design shortcomings a core mission and function of DARCOM MSC ILS offices.
- d. Place an appendix in the DARCOM ILS regulation describing opportunity for influencing the design through full use of MIL-STD-490 format.
- e. Provide training for DARCOM ILS managers on how to influence the design logically.

The supportability weighting action item stemmed from the observation that supportability is not separately identified and does not receive

sufficient weight in the source selection process. The weight given logistics in the source selection process is evident in Section M, Evaluation Factors for Award, of the solicitation document. Here the contractor is given a clear indication of the relative order of importance of the evaluation factors. In a recent industry survey, contractors were asked what weighting was applied to the supportability area in contract awards. Two-thirds of them estimated it to be insignificant, less than 10 percent; and one-third placed the value between 10 percent and 15 percent. The contractors surveyed had a background of repeated award experience. This continues to happen in spite of the AR 1000-1, 1 May 81, paragraph 2-21b requirement that "Logistic supportability will be a design requirement as important as cost, schedule, and performance."

The subgroup recommended the revision of the DARCOM policy and procedure documents on source selection to provide for supportability as a separate evaluation factor and 25 percent minimum weighting. The subgroup also recommended that ILS participation be required in the overall source selection process, i.e., SSEB, Selection Plan preparation, etc.

The maintenance concept action item stemmed from the observation that the maintenance concept, i.e., the way the Army wants maintenance to be done, is not defined early enough in the acquisition process to allow it to serve as the basis for developing detailed design requirements for entry into the system/development specification.

The subgroup recommended that the ILS manager be made responsible for ensuring the availability of a detailed, coordinated maintenance concept, and that a maintenance planning standard be developed to define the terms and processes used in developing the maintenance concept and maintenance plan.

The logistic acquisition strategy action item stemmed from the observation that the lack of a definitive, coordinated acquisition strategy for developing and acquiring the logistic elements, e.g., tech pubs, training, etc., adversely impacts the preparation of logistic inputs to the solicitation document. Since the solicitation document is the means by which the Army's "needs" are made known to the contractor, it is imperative that those "needs" are clearly defined and coordinated before beginning preparation of the solicitation document.

The subgroup recommended that the ILS Plan (ILSP) be updated and available at least 30 days prior to initiating solicitation document development for the Demonstration and Validation (DVAL), Full-Scale Development (FSD), and Production phases. The subgroup also recommended that the development of the DA pamphlet

on the ILSP be expedited. This pamphlet should emphasize the role the ILSP plays in establishing the acquisition strategy for the logistic elements and serving as a baseline for developing the solicitation document.

The contractor incentive for reliability and support action item stemmed from the observation that knowledge and experience in applying contractor incentives for reliability and support is not widespread within the DARCOM ILS community. This is in spite of Carlucci Initiative #16 which stressed the need for the services to develop greater expertise in support related contractor incentives through analysis of lessons learned.

The subgroup recommended that the DARCOM Directorate of Procurement and Production effort in response to the Carlucci Initiative #16 be monitored and that a 1 day briefing be developed based on the results and presented to the DARCOM MSC ILS offices. The subgroup also recommended that the DARCOM ILS community develop policy and procedure for implementing these incentives based on results of Procurement and Production evaluation.

The ILS standardization action item stemmed from the observation that although all DARCOM MSCs basically contract for the same logistic work effort and data, there is little standardization in either the work tasks imposed or the data required. The work tasks required to develop the logistic products, e.g., tech pubs, training, ILS program, etc., are essentially the same for all acquisitions of like strategy and life cycle phase. Other services utilize limited coordination military standards to standardize the work tasks for specific logistic efforts, e.g., MIL-STD-1369 (EC), ILS Program Requirements; MIL-STD-1349, Contractor Training Programs.

The subgroup recommended establishment of ILS as a standardization area within the DOD Standardization and Specification Program; development of a standardization program plan to identify the areas of standardization with the greatest potential payoff; and, in accordance with the ILS Standardization Plan, development of selected standards either by an inhouse work group or under contract.

The dedicated logistic prototype action item stemmed from the observation that developmental prototypes are not available in sufficient quantity to enable the accomplishment of required logistic work tasks.

Developmental prototypes are basically hand crafted and, therefore, expensive and competition for use of developmental prototypes is keen. Primarily, they are used to support the engineering effort. However, development of the logistic products, e.g., LSA/LSAR, tech pubs, provisioning technical documentation and

training, requires ready access to developmental prototypes.

The subgroup recommended that the DARCOM ILS regulation be revised to state that dedicated logistic prototypes are required for all major and designated acquisition programs, and for nonmajor systems where availability of such prototypes will significantly reduce the risk of conditional materiel release.

The ILS contracting training action item stemmed from the observation that the training available on ILS contracting is not sufficient to meet the needs of DARCOM ILS managers. Developing the logistic portion of a solicitation document is a complex process requiring a broad range of skills and knowledge in such areas as the Defense Acquisition Regulation requirements, data management, good writing practices, and the many specifications and standards that relate to acquisition logistics.

DARCOM ILS training, at that time, devoted approximately four hours to contracting for ILS. The training referred to here was in the Army Logistic Management Center (ALMC) 4 week ILS regular course and the 2 week ILS management course. However, ALMC was developing a 1 week ILS contracting course with the instructor cadre currently available. The ALMC FY 83 schedule for ILS contracting course presentations was 1-5 Nov 82, 31 Jan - 4 Feb 83, and 28 Mar - 1 Apr 83. Consequently, the subgroup recommended that the first ALMC ILS contracting course be used as a developmental test with DARCOM ILS personnel with contracting experience attending and assisting the ALMC instructor cadre in developing necessary corrections.

CONCLUSION/SUMMARY

It should be noted that none of the solicitation documents subgroups recommendations can be considered earthshaking. This is in accordance with the study charter to develop pragmatic, doable corrective actions. This in part contributes to the fact that with only minor modifications, the recommendations of the solicitation documents subgroup were accepted by the study chairman and are in the process of being implemented. The implementation of some recommendations will require extensive coordination between HQ DARCOM staff elements. Needless to say, this will take time. However, those actions that only required changes to the DARCOM ILS regulation have, in effect, been implemented. Although the DARCOM-R 700-15, ILS, is still being revised, interim guidance has been provided in a "six star letter" signed by both DARCOM Deputy Commanding Generals.

The DARCOM ILS Study provided an excellent vehicle for elevating ILS contracting pro-

blems to the general officer level. With this attention and the continuing overwatch by the DARCOM Director of Supply, Maintenance, and Transportation on efforts to implement the recommendations, significant progress is being made to improve the quality of the ILS contracting effort within DARCOM.

BIBLIOGRAPHY

- (1) Letter, DRXMD, MRSA, 8 Sep 82, subject: Final Report on the DARCOM ILS Study.
- (2) Letter, DRCMSM-IP, DARCOM, 5 Jan 83, subject: Integrated Logistic Support (ILS) Program Responsibilities